

Claims:

This listing of claims will replace all prior versions and listings, of claims in the application:

Listing of Claims:

1. ***(Previously Presented)*** A unitary device for treating compressed air, to be installed in an industrial vehicle comprising a motor vehicle able to haul a trailer, including:
 - an air inlet for air coming from a compressed-air source;
 - at least one air outlet connected to a reservoir or reservoirs intended to supply a service brake system;
 - a set of electropneumatic components distributing compressed air from the compressed-air source bound for the reservoir or reservoirs;
 - an electronic command and control unit, to operate said set of electropneumatic components, the command and control unit being connected to a computer communication bus and to various electrical components;
 - a supplementary air outlet for directly providing compressed air at a variable control pressure to an actuator or actuators of a parking brake system of the motor vehicle;
 - a supplementary set of electropneumatic components associated with and upstream of the supplementary air outlet which set receives compressed air at a supply pressure and applies the variable control pressure to the compressed air to selectively fully operate the actuator or actuators; and
 - operating means incorporated into the electronic command and control unit, to operate the supplementary set of electropneumatic components on the basis of information originating from the computer communication bus and/or from various electrical components, whereby full operation of the actuator or actuators of the parking brake system is directly controlled by the device rather than by a dispersed pressure control component.

2. **(Previously Presented)** The device as claimed in claim 1, wherein the supplementary air outlet and the set of associated electropneumatic components, are arranged in an element attached to a body of the device.
3. **(Previously Presented)** The device as claimed in claim 1, further comprising:
 - additional air outlet or outlets for directly supplying compressed air at a variable control pressure to an actuator or actuators of a pneumatic suspension system of one axle;
 - an additional set of electropneumatic components associated with and upstream of the additional air outlet or outlets which set receives compressed air at the supply pressure and applies the variable control pressure to the compressed air to selectively fully operate the actuator or actuators of the pneumatic suspension system;
 - operating means incorporated into the electronic command and control unit to operate the additional set of electropneumatic components on the basis of information originating from the computer communication bus and/or various electrical components, whereby full operation of the actuator or actuators of the pneumatic suspension system is directly controlled by the device rather than by a dispersed pressure control component.
4. **(Previously Presented)** The device as claimed in claim 3, wherein the additional air outlet or outlets and the additional set of associated electropneumatic members, are gathered together into one or more elements attached to a body of the device.
5. **(Previously Presented)** The device as claimed in claim 4, wherein the additional air outlets are grouped together into one and the same element attached by flanges to the body of the device.
6. **(Previously Presented)** The device as claimed in claim 3, wherein the electronic command and control unit is interfaced with one or several altitude sensors measuring a difference in height between a chassis of the vehicle and one or several points of the axle.

7. ***(Previously Presented)*** The device as claimed in claim 1, further comprising:
 - complementary air outlet or outlets for directly supplying compressed air at a variable control pressure to a pneumatic actuator or actuators of an auxiliary system,
 - a complementary set of electropneumatic components associated with and upstream of the complementary air outlet or air outlets which set receives compressed air at the supply pressure and applies the variable control pressure to the compressed air to selectively fully operate the pneumatic actuator or actuators,
 - operating means incorporated into the electronic command and control unit to operate the complementary set of electropneumatic components on the basis of information originating in particular from the computer communication bus, whereby full operation of the pneumatic actuator or actuators of the auxiliary system is directly controlled by the device rather than by a dispersed pressure control component.
8. ***(Previously Presented)*** The device as claimed in claim 1, further comprising means for dehumidifying air originating from the compressed-air source.
9. ***(Previously Presented)*** The device as claimed in claim 8, wherein the means for dehumidifying the air comprises a cartridge that can be removed from a body of the device.
10. ***(Previously Presented)*** The device as claimed in claim 2, further comprising one or several supplementary elements attached to the body of the device, each element having one or several electrical contacts to be incorporated into an electric control circuit, said contacts being operated by the command and control unit on the basis of information from the computer communication bus and/or various electrical components.
11. ***(Previously Presented)*** The device as claimed in claim 7, wherein said auxiliary system comprises at least one of a differential lock system and a movement take-off system.

12. ***(Previously Presented)*** The device as claimed in claim 1, wherein there is no pressure control component between the supplementary air outlet and the actuator or actuators of the parking brake system.
13. ***(Previously Presented)*** The device as claimed in claim 1, wherein each set of electropneumatic components comprises one or more electropneumatic components.
14. ***(Previously Presented)*** The device as claimed in claim 3, wherein each set of electropneumatic components comprises one or more electropneumatic components.
15. ***(Previously Presented)*** The device as claimed in claim 7, wherein each set of electropneumatic components comprises one or more electropneumatic components.
16. ***(Previously Presented)*** The device as claimed in claim 1, wherein the unitary device is situated on an outlet side of the compressed air source.
17. ***(New)*** The unitary device of claim 1 wherein said supplementary set of electropneumatic components comprises an electropneumatic component for exhausting the compressed air to activate the parking brake.
18. ***(New)*** A system for controlling a service brake system and a parking brake system comprising the unitary device of claim 1 and further comprising the actuator or actuators of a parking brake system being located downstream of the supplementary air outlet of the unitary device and configured to actuate the parking brake system, the actuator or actuators being separate from the unitary device.
19. ***(New)*** A unitary device for treating compressed air, to be installed in an industrial vehicle comprising a motor vehicle able to haul a trailer, including:
 - an air inlet for air coming from a compressed-air source;
 - at least one air outlet connected to a reservoir or reservoirs intended to supply a service brake system;

a set of electropneumatic components distributing compressed air from the compressed-air source bound for the reservoir or reservoirs;

an electronic command and control unit, to operate said set of electropneumatic components, the command and control unit being connected to a computer communication bus and to various electrical components;

a supplementary air outlet for directly providing compressed air at a variable control pressure to an actuator or actuators of a parking brake system of the motor vehicle;

a supplementary set of electropneumatic components associated with and upstream of the supplementary air outlet which set receives compressed air at a supply pressure and applies the variable control pressure to the compressed air to selectively fully operate the actuator or actuators;

operating means incorporated into the electronic command and control unit, to operate the supplementary set of electropneumatic components on the basis of information originating from the computer communication bus and/or from various electrical components, whereby full operation of the actuator or actuators of the parking brake system is directly controlled by the device rather than by a dispersed pressure control component; and

wherein one of said supplementary set of electropneumatic components comprises an electropneumatic component for exhausting the compressed air to activate the parking brake system.

20. **(New)** A system for controlling a service brake system and a parking brake system comprising:

a unitary device for treating compressed air, to be installed in an industrial vehicle comprising a motor vehicle able to haul a trailer, said unitary device comprising:

an air inlet for air coming from a compressed-air source;

at least one air outlet connected to a reservoir or reservoirs intended to supply a service brake system;

a set of electropneumatic components distributing compressed air from the compressed-air source bound for the reservoir or reservoirs;

an electronic command and control unit, to operate said set of electropneumatic components, the command and control unit being connected to a computer communication bus and to various electrical components;

a supplementary air outlet for directly providing compressed air at a variable control pressure to an actuator or actuators of a parking brake system of the motor vehicle;

a supplementary set of electropneumatic components associated with and upstream of the supplementary air outlet which set receives compressed air at a supply pressure and applies the variable control pressure to the compressed air to selectively fully operate the actuator or actuators;

operating means incorporated into the electronic command and control unit, to operate the supplementary set of electropneumatic components on the basis of information originating from the computer communication bus and/or from various electrical components, whereby full operation of the actuator or actuators of the parking brake system is directly controlled by the device rather than by a dispersed pressure control component; and

said actuator or actuators being located downstream of said supplementary air outlet, being configured to activate said parking brake system, and being separate from said unitary device.

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